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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,205	08/28/2003	Ambrose Harry Rajamannan	20038AG	5115

7590 09/22/2005
Herman H. Bains
6101 Tracy Avenue
Minneapolis, MN 55436

EXAMINER

CLARDY, S

ART UNIT PAPER NUMBER

1617

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,205

Applicant(s)

RAJAMANNAN, AMBROSE
HARRY

Examiner

S. Mark Clardy

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Art Unit: 1617

Claims 1-13 are pending in this application.

Applicant's claims are drawn to post-harvest horticultural methods of treating banana and plantain plants (*Musa* genus) comprising selective sucker pruning and introduction of nutrient and "microorganismic substances" into the mother plant.

The disclosure is objected to because of the following informalities: when figures are presented, a section entitled "BRIEF DESCRIPTION OF THE DRAWINGS" is needed. Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Cepeda et al (US 5,929,121), Rajamannan (6,372,238), and Yamashita (US 5,549,729).

Cepeda et al teach methods to protect banana or plantain trees by applying a pesticidal composition (insecticide, nematocide, fungicide, plant growth regulator) into the cut pseudostem of the mother tree, following the customary horticultural practice of cutting the mother stem and allowing daughter plants to grow (columns 1-2).

Rajamannan teaches a method of using implants to fertilize, and to control growth and fungal and insect attack on banana and plantain plants. Rather than injecting liquid active agents into the cut pseudostem of the mother plant, solid implants are inserted to avoid having the active material exude out of the stem following injection (column 1). The active agents may be macro-

Art Unit: 1617

nutrients, micronutrients, vitamins, and pesticidal components (col 2, lines 17-56). One of ordinary skill in the art would be motivated to use the compositions of Rajamannan in the process of Cepeda et al in order to avoid having liquid active agent expelled from the treated tree.

Yamashita teaches compositions for promoting and controlling the growth of plants comprising a wide variety of nutrient materials including macronutrients (NPK, and secondary nutrients Ca, Mg, and S), and micronutrients, as well as vitamins and cofactors (including yeast and yeast extract, col 7, line 64), growth regulators, etc. (columns 6-9). The compositions are disclosed as being useful for a variety of plants including banana (col 43, line 58). Thus the ordinary artisan would be motivated to use the compositions of Yamashita for the plant nutrient material of Cepeda et al because it is disclosed as being useful for treating banana plants.

Thus it would have been *prima facie* obvious to the ordinary artisan at the time the invention was made to have carried out applicant's method of cutting the mother plant pseudostem and allowing daughter plants to grow because it was a known horticultural practice for bananas and plantains. Absent evidence of unexpected results, it would appear to be within the skill level of the ordinary artisan to select which daughter plant(s) to leave attached to the cut mother pseudostem to grow into an adult plant. Further, the prior art teaches injecting or implanting plant growth regulating materials and nutrients (including microbial materials) directly into the cut pseudostem.

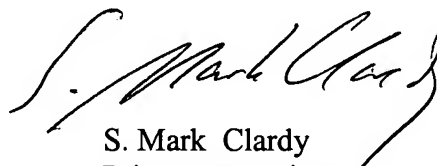
No unobvious or unexpected results are noted; no claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

Art Unit: 1617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Mark Clardy
Primary Examiner
Art Unit 1617

September 20, 2005